

United States of America
Department of Transportation — Federal Aviation Administration
Supplemental Type Certificate

Number SA1147NW

This certificate, issued to Machen, Inc.

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 4a of the Civil Air Regulations.

Original Product — Type Certificate Number: A-766

Make: Universal (Globe)

Model: GC-1B

Description of Type Design Change: Installation of a Franklin 6AS-350-A engine; McCauley 2A34C201/90DA-12 propeller; Bendix-Stromberg PS-5C Carburetor; modified forward fuselage; single (center located) control column with electric propeller pitch control; electric throttle control, and electric elevator trim; inverted fuel and oil system; retractable tail wheel assembly; aileron centering spring; modified engine baffles; engine cowl flap; modified elevator trim tab; landing gear wheel-well doors; and a modified center section wing fairing in accordance with Machen, Inc. Installation Instructions No. 1, 2, 4, 5, 9, and 10. This design change includes a takeoff gross weight increase to 1970 Pounds.

Limitations and Conditions: Data pertaining to this modification are considered inadequate for duplication in other aircraft. This approval is limited to the installation in Universal Model GC-1B, Serial Number 230 only. A copy of this Certificate, Addendum No. SA1147NW and Machen, Inc. Installation Instructions shall be maintained as part of the permanent records for the modified aircraft.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: June 17, 1973

Date issued:

Date of issuance: December 31, 1974

Date amended: February 3, 1975



By direction of the Administrator
Charles E. Schroeder
(Signature)

Chief, Engineering and Manufacturing Branch
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States of America
Department of Transportation — Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SALL7NW

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SALL7NW

The conditions and limitations of the original specification apply except as follows:

This Addendum, which is part of Supplemental Type Certificate No. SALL7NW, prescribes conditions and limitations under which the STC was issued and meets the airworthiness requirements of Civil Air Regulation 4a. A copy of this Addendum shall be maintained as part of the modified aircraft permanent records.

SUPPLEMENTAL TYPE CERTIFICATE HOLDER: Machen, Inc.

I. GLOBE GC-B (LANDPLANE -NORMAL CATEGORY) AS MODIFIED BY STC SALL7NW

Engine: Franklin 6AS-350-A

Fuel: 100/130 Minimum grade aviation gasoline

Engine Limits:
Takeoff (1 Min.) 2800 rpm @ 42.0" Hg.
METO 2700 rpm @ 37.0" Hg.

Propeller & Limits: McCauley 2A34C201/90DA-12
Diameter: 78 "

C. G. Range: (22.6) to (+26.0) @ 1970 Pounds

Maximum Weight: 1970 Pounds

Datum: Fwd. Face of firewall at bottom

Oil Capacity: 8.8 Quarts

Powerplane Instrument Markings:

Oil Temperature:
Green Arc 120° to 250° F - Normal operating range
Yellow Arc 60° to 120° F - Caution
Red Line 250° F - Maximum

Oil Pressure:
Green Arc 55 to 80 psi - Normal operating range
Yellow Arc 25 to 55 psi - Caution
Red Line 25 psi Min, - 80 psi Max.

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

Tachometer:

Green Arc 500 to 2700 rpm - Normal operating range
Red Line 2800 rpm - Maximum

Cylinder Head Temperatures: (Well-Type thermocouple)

Green Arc 200° to 400° F - Normal range

Serial Number: 230 Only

Note: 1. Current weight and balance report including list of equipment in the certified empty weight must be in the aircraft.

Note: 2. In addition to the placards and markings required by the Type Certificate Data Sheet A-766, Note 2, apply the following:

Placards: (1) It is the responsibility of the pilot to ensure operation within the approved weight and center of gravity limits at all times.

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